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WINTER Vakuumpresse KVP 300

USER MANUAL

PRODUCTINON YEAR :
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SERIAL NUMBER:

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1.GENERAL SECURITY WARNINGS AND INSTALLATION:

a.When you place the machine where it will serve, firstly make level control with a water gauge.
b.All electrical tests and connections must done by an electrical technician.All wire connections are firmly locked at the factory.During transport,it can happen that some of the contacts get loose.If so,please check and tıghten them.Than open electrical cabinett and find the connector set which is placed on left hand side inside cabinet. Now you will fix phasee cables in connectors marked L1- L2- L3 and neutral line to N marked connectorl- ant earth line to E marked connector.

c.Than make compressed air connection.Look at the picture below.

Before starting any operation you should read this manual.

After connecting the machine to main, test and check the vacuum pump motor rotatıon .For this ; pres manual button on the electronic device then to start the vacuum pump motor , press vakum button. For stopping the motor pres again same button.Than to open resistance block (in manuel mode) press ‘’Heat’’ button. If red numbers are slightly goes up you can stop the heaters by pressing ‘’Heat’’ button again.

1.You should make ground connection of the machine

2.Do not let anyone to work machine except the operator.

3.Do not let anyone to approach the machine except the operator while working.

4.Do not let anyone to open electrical cabinet to make any operation.This job is for an electrical technician.

5.Dont touch resistances while working or after a short while after working.

6.Do not use any kind of material except especialy produced for a vacuum pres.

7.Do not set the electronical heat sensor more than 130 C. Degrees.

8.Before clamping the PVC pressing frame or resistance block you should check your friend not to put his hand below it.

9.Do not use any kind of glue or PVC material except specially produced for vacuum pres.

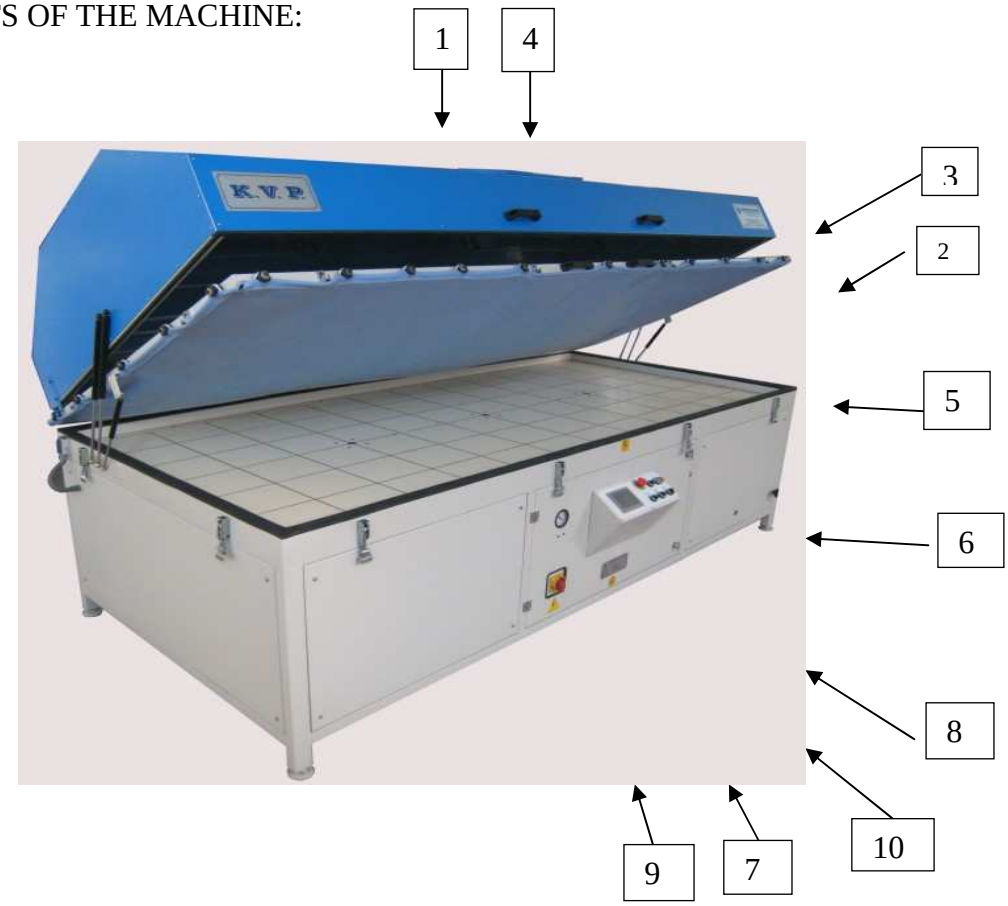
10.Do not try to use petrol based glues.

2.TECHNICAL SPESIFICATIONS:

ELECTRICAL CONNECTION	:380-400 V 50-60 HZ.
TOTAL POWER ABSORBTION	:31 KW. / Hour
DIMENSIONS OF MACHINE(W-L-H)	:305cm x: 160cm x:140cm
TABLE QUANTITY	: 1TABLE
TABLE OUTER DIMENSIONS	: 1390mm x 3000 mm
TABLA INNER DIMENSIONS	: 1290mm x3000 mm
TABLE DEPTH	: 45 mm
USEFULL AREA ON TABLE	: 1150mm x 2700 mm
POWER OF VACUUM PUMP MOTOR	: 1,5 KW
VACUUM SUCKTION PER HOUR	: 40 M3 / h
TYPE OF HEAT SENSOR	: IR sensor
HEAT CONTROL DEVICE	:PLC
OPERATION CONTROL	: Automatic and Manual
TYPE OF HEATERS	: 800 watt-110 V. 60 HZ. Quartz Resistances

*Note: All datas are aproximately

3.PARTS OF THE MACHINE:



1. HEATER GROUP COVER
2. PRESS TABLE
3. PVC HOLDING FRAME
4. MONITORING WINDOW
5. CLAMPS
6. ADJUTABLE FOOT
7. ELECTRICAL CABINET
8. VACUUM PUMP INSIDE BODY
9. VACUUM LEVER FOR TABLE
10. OPERATING PANEL

4.WARRANTY :

KVP machines are under warranty for 1 year.The warranty period starts with the date of delivery.The manufacturer guaranties provable fault of material or production.Parts subject to fair wear and tear, also damages caused by improper use or insufficient maintenence are not covered by this warranty.The right for warranty expires if unauthorized persons modify or repair the machine.

5. PROGRAMING THE PLC :

BASIC IMPORTANT PRINCIPLES TO WORK WITH A VACUUM PRESS MACHINE

First off all this job based on physical spesifications of of Glue and PVC foil.

GLUE:Polyurethane based glues are being activated when they are reach to average **65 C degrees.** Therefore you should heat the glue over this temperature to provide good sticking.
*On the other hand glue has a lifetime for using .It means after produced it has a stocking time limit.It is generally 4-6months according to brand.
*Lower degrees than **5C** breaks the Glue.
*When job finished on machine glue keeps working for 18-24 hours more.So do not trim pvc after pressing and wait at least 18 hours before assembling.
* Apply the glue 2 times on the sides of MDF and 1 times for surface.

PVC foils start to softening when they are reach to average **45-50 C degrees but** strechable well when it reach to **65-70 C.**

Beceause of theese two physical matters about PVC and Glue we should always place the PVC foils in to grooves on the top of workpiece (MDF) before 70 C degrees.Otherwise glue sticks to PVC and Workpiece and never lets air to pass and go out between workpiece and PVC.That means PVC will not be placed exactly in to grooves.We can take air out of grooves or profiles only before 70 degrees.If grooves are so deep and vacuum pump doesnt take out all of air , make a little hole inside the groove through back side.
Therefore we should make some adjustements according to topic mentioned before.We should make a programe step by step and divide the temperature and put vacuuming time.

Optimum working temperature of PVC foils differs according to their thickness (0.30-0.35-0.40-0.50-0.55 etc.) and producer company or dark – light colour type of material . Light materials reflects the beams and dark materials holds.(it is valid for IR heat sensor)

Experience is important .Start from 75 C for first time and watch the material.If material doesnt cover edges well - increase the10th step's temperature 5 more. If PVC torn on the edges it means last temperature is high. Decrease 10^{th} or last step before written ''0'' step's temperature value.

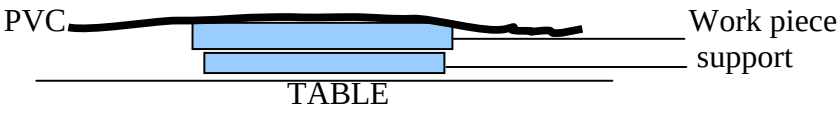
PREPARING A PROGRAM;

An example programe;

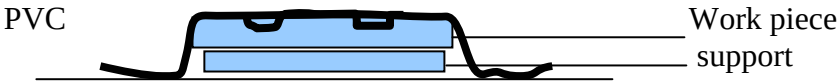
Step	Heat(C)	Time (sec)	Step	Heat (C)	Time(sec)
1	45	1	6	70	2
2	50	1	7	75	2
3	55	1	8	80	2
4	60	1	9	80	0
5	65	1	10	85	90

90 seconds vacuuming and waiting time for cooling down before taking the workpieces out.

Situation on 50 C



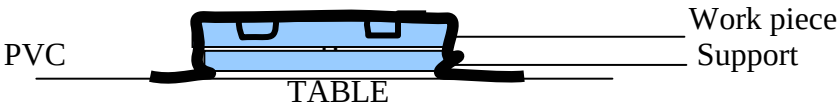
situation on 65/70 C



İmportant! TABLE

PVC should be placed in to grooves or profiles at 65- 70 C .If it doesnt happen you should inrease the vacuum times of step1,2,3,4 an 5. Up to this degree you should be adjusted the vacuum times as if PVC material always keep touching to workpiece and having seen flat not wavy.Some PVC materials starts to become wavy when heated.You have to make it flat before glue activated.Otherwise there will be wrinkles on the especially on long or wide workpiece.For providing flatness watch inside of owen- if pvc starts waving push manual vacuum button for a while to make pvc flat. Repeat pushing if vacuuming time doesnt enough till the end of operation. If wrinkle doesn't disappear by pushing vacuum button stop machine before temperature reach up to 60 degrees. Slide the heater car away(M-280) and make it flat manually. You can use heater gun if you need.As you remember if glue sticks PVC you can not take the air out and workpieces goes waste.

situation on 75-85 C (as last set point)



When warmth of PVC reach up to last set temperature lower edges of workpiece will be closed and sticked.If there is a failure during the operation it will not sticked well.

Failures may be beceause of ;

1.Low end temperature(10. Step or last step before ‘’ 0’’ written) 2.Holes or torns on the PVC beceause of High end temperature or much vacuuming before pvc heated enough
3.Low quality of glue 4.Low quality of PVC 5.High humidity of MDF 6.There is not enough space between two workpieces or through the inner side of table. 7.Operator used thiner support than 22 mm. 8. Total height of support and workpiece is over than 50 mm. 9.Bottom edge of workpiece has radius.

Open main schalter of the machine, the screen at below will appear a little while later.

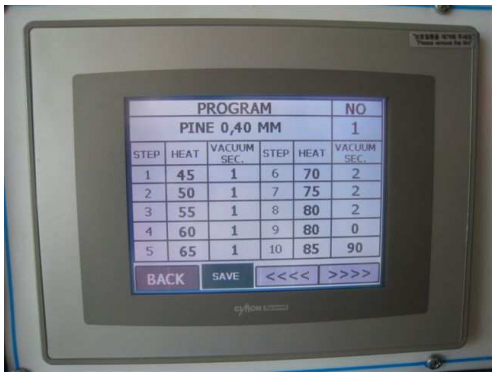
By touching WORK PAGE buton on the screen OPERATION PAGE will be seen as below.

On this page;
Current temperature inside owen (ACTUEL HEAT)--
Maximum working temperature on automatic working mode as (AUTO SET HEAT) –
Maximum manuel working temperature on manuel mode as (MANUEL SET HEAT)
Program name – at the Picture below it is seen as ‘’prg 0.40’’
Program number - at the Picture below it is seen as ‘’ 0’’
Right and left arrows (you can change Prog. Number you want to work with by touching on them)—
ALARM warning for information about security and break downs (if you touch on it description of failure will be seen.)
are seen.

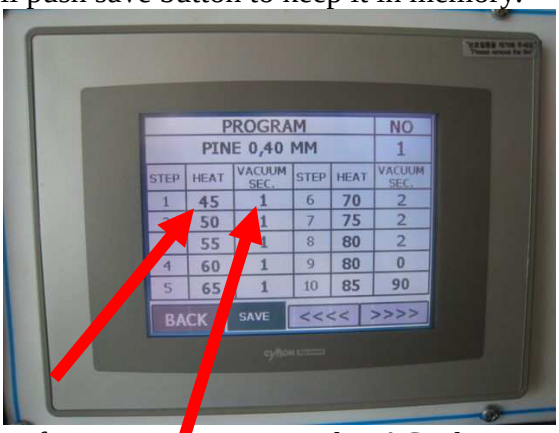
For preparing a new program or for changing a parameter of a prepared program touch PROGRAM SETUP button on screen.

Than programing page will appear.

You will see 10 steps for writing temperature and against it’s timing and also program no up to 99 program and program name.
For example change program number by touching arrows or touch square under ‘’NO’’ on top right. Than touch square under PROGRAM and wright a name for his program.



Than touch heat of step 1 to adjust temperature of 1st step. The calculator screen will appear.Write the temperature by touching on numbers.Than touch OK. Than Vacuum Sec . square of 1st step and write vacuuming time of 1st step.Repeat same thigs till 10th step.
After all adjustments you will push save button to keep it in memory.



After saving the new program if you want to use it push BACK button,creen will change to operation screen;

Now machine is ready to work in automatic cycle or manual cycle.

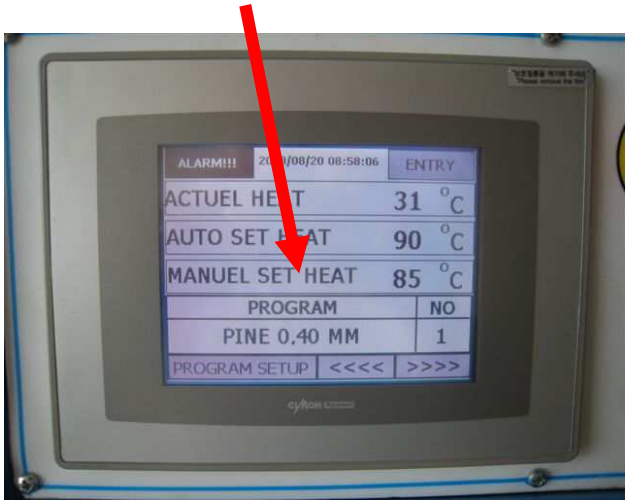
Put the manual-Automatic selector button to automatic position and manual heating in off position as shown below.

and push the green button machine starts automaticaly.

<u>WORKING IN MANUAL MODE :</u>

For working in manual mode ; Turn the manual-automatic selector button to "Manual" position

Adjust the manual working temperature by touching on screen.



Than move the manual heating button on right position.Green light will be lit and machine will start to warm up.

When heat reaches up to 60'C stop heating by turning off manual heating buttonand open heater bank immediately before pvc get cold . Make flat the pvc by hand like ironing.Than make some vacuum (look at Picture on above) up to arrow in the vacuum gauge just begin to move. It is important when you are working with long workpieces like door.If you dont do like this and make vacuum enough while working, pvc starts to take wavy shape and it causes wrinkle on top side of panel.
Than pull heater bank over table and start heating again.Look at the heat indicator and also inside table.Starting from 40 'C make 1-2 seconds vacuum.When heat rise up to 65-70 C' start PVC place in to grooves on top side of panel by making enough vacuum . For providing it look at inside of owen from monitoring window.
Than keep making vacuum time by time while heat on pvc increasing.When heat reach up to set point make vacuum for longer time to provide sticking hardly and provide compleate shaping.

6.PUTING AND SETTLING THE PANELS ON TABLE:

Place a base part which has small dimensions against work pieces aproximately 1 cm.The thickness of the base parts has to be 18-22mm.Remember that if you increase the thickness of base part or workpiece you should increase the distance of two workpiece on the table and workpiece-table edge also.

PLACING: Allways place 1 workpiece under the circle hole on the heater bank.Infra Red heat sensor should sense the warmth of workpiece-not table.For other machine which has air Thermocouple this is not valid or important. Between the workpieces (thickness:18 mm) on the table there should be minimum 6 Cm. Between table's inner edge and workpiece there should be minimum 10 Cm distance.

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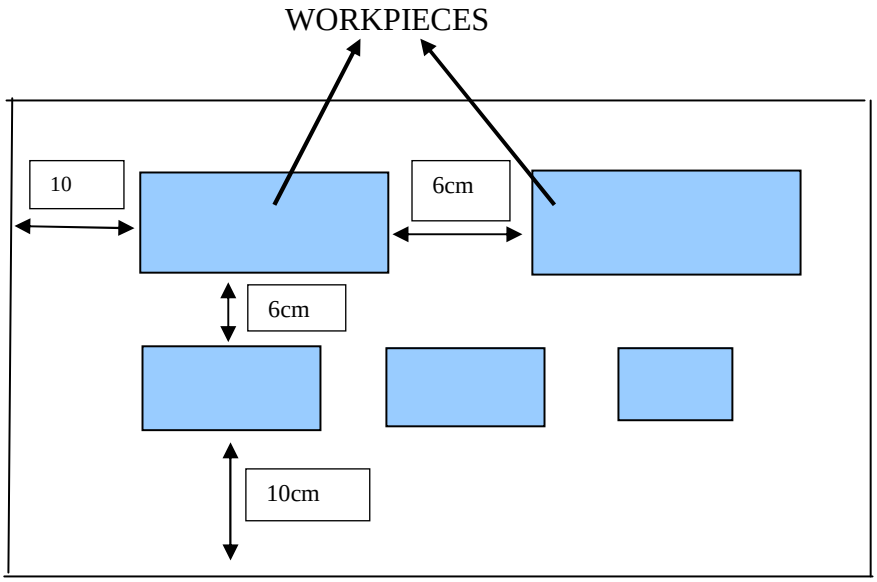

TABLE

7.WORKING WITH MEMBRANE:

If you have a job for membrane follow this way:

a.Place template over table

b.Place glued workpieces over template and fix them to template with a paper band to prevent slide over table.

c.Put the selector button on manual mode.Adjust temperature you will work.Normaly it will be 10 degrees more than regular.Beside it depends on workpiece thickness.

d.Close membrane over table and start vacuum pump manualy.Membrane will wrap workpiece.Look picture below.Than stop it.

e.Close heater cover over table and open the heaters manualy.Follow the heat go up.Also see the vacuum gauge and make some vacuum sometimes to prevent arrow of gauge dont let go down 500mb.

f.When workpiece reach desired temperature stop heating.(normaly it will stop automaticaly)Open vacuum pumpand open heater group cover and let workpiece get cold.

g.When it gets cold stop vacuum pump and open miniature vane near the vacuum gauge to let air go in table surface and let membrane loose.Than close it again.Open frame and take workpiece out.

8.MAINTANANCE:

Protect your machine from dust

Pour and wipe membrane once in a day with talcum powder if you use it every day.
If you dont use it so often pour talcum powder once in a week.

Oil for vacuum pump is written on vacuum pump body.

DAILY: Protect machine from dust.Clean the table with a vacum cleaner.
WEEKLY:Check oil level if it needs add oil.Remove fitler and clean it with air pistol.
MONTHLY:Change vacuum pump oil if its colour turned to white or near to white.
6 MONTH: Pour out oil from pump.Fill diesel oil.Start pump and let it work for 5 minutes.
Pour out diesel oil.Fill pump with new oil.
Change air filter.